

REMARKS

It is noted that in the Office Action mailed August 12, 2005, the Examiner had indicated that the drawings filed with the application on June 15, 2001, were accepted; however, formal drawings were filed on February 4, 2002, which have not been acknowledged by the Examiner. Acknowledgment of the receipt and acceptance of the formal drawings is respectfully requested.

The formal drawings have necessitated amendments to 29 and 30 of the specification to conform the case of reference characters to those of the formal drawings. In addition, a minor amendment has been made to page 25 to correct a grammatical error.

Claims 1 and 3 to 7 remain in the application.

The disclosed and claimed invention is directed to system analysis and design in a complex business environment characterized by a set of tightly linked business processes, such as a supply chain. The method and tool set capture the world view embedded in each sub-system in an unambiguous language, BDML (Business Decision Markup Language), and verify consistency along process flows. The invention consists of two key components: (1) a framework for specifying the understanding or world view of a business decision embedded in a process step and/or a business application software system supporting a process step, given in the form of BDML, and (2) a tool to automatically check the logical consistency between different documents written in BDML. The world view is defined by the business objectives, constraints, assumptions, data, and underlying model used in the business decision and/or the application software system. Using this framework, each business decision and/or business application software system in a complex environment such as a supply chain can be specified by a BDML document. Constructs in BDML are designed to support quantitative and logical elements. The tool takes as input a user specified set of BDML documents in electronic form and provides (a) reports on inconsistency (if any) of the business objectives, constraints, assumptions, data, and underlying model among the different documents; and (b) suggestions (if needed) to improve consistency based on stored knowledge of similar business decisions and popular choices for

their decision support models.

Claims 1 and 3 to 7 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. US 2002/0169658 to Adler. This rejection is respectfully traversed for the reason that Adler does not show, much less teach, the claimed invention.

To begin with, each of the claims includes limitations relating to the use of the BDML to implement the framework for specifying the world view of the business decisions. See, for example, claim 1, lines 7 to 9. Despite the Examiner's paraphrasing the claims in his rejection, there is nothing in Adler which would remotely suggest the BDML. Therefore, the rejection is clearly in error since there is no anticipation under Section 102. Moreover, there is nothing in Adler to suggest the claimed invention.

Responding to the Examiner's specific contentions, Applicants state the following:

1. Claim 1. We agree that Adler's invention pertains to a specific instance of business processes, business decisions, business objectives, constraints, assumptions, and data, all related to the class of strategic business decisions covered by Adler's invention [0032-0033, 0041-0043]. This is in fact a typical example of business decision support systems which normally will contain such content. Our invention provides a systematic way to document these content and a way to process the documents of these content by a computer (so as to check for consistencies and errors).
2. Claim 1. Adler's modeling framework [0099] is a framework for the software programming model used in his invention (an object model in this instance). The framework referred to in our invention is a framework for mathematical or logical models used to represent business decisions. A typical mathematical model of such kind is an optimization model in the operations research or management science trade, representing, for example, a decision to use what resources at what time to manufacture the selected products at minimum cost.
3. Claim 1. The business decisions [0073] and materials related to them (including declarative model elements, data, etc. that are stored in the repository

[0084] in Adler's invention cover strategic decisions only, as have been emphasized in numerous places in the invention [Abstract, 0002-0007, 0033, 0073]. Our invention covers any business decisions, from operational to strategic and from simple to complex decisions. The goal in Adler is to provide analysis tools to support the making of complex strategic decisions. Our goal is to provide a systematic, machine and human readable way of documenting and communicating any business decisions embedded in all business processes of an enterprise. Further, the XML Application Programming Interfaces in Adler [0084] are used for "import of data from external third-party data sources and export of data from the present invention to external users or data management systems". The BDML documents in our invention specify the business objectives, constraints, assumptions, and underlying model used in a software application, in addition to the data used in the software application.

4. Claim 7. The behavioral rules described in Adler's invention [0083] are code to "capture programmatically simulated actions of domain players or interactions between domain players." There is no mentioning of checking consistencies between actions. Some actions, especially those belonging to different players, may not be logically consistent, contributing to undesirable outcomes. This is precisely a key reason for our invention.

5. Claim 7. The business decision modeling framework mentioned in Adler [0099-0101] refers to an object model, utilizing Unified Modeling Notation (UML), to facilitate computer code implementation of his system. The modeling framework mentioned in our invention refers to a mathematical and logical model of a business decision, regardless of whether the business decision is made using a computer or completely manually. Our invention is independent of and does not rely on whether a software application is developed using objects or using legacy, procedural logic or code. For this reason we do not mention any "objects" or any other form of computing artifacts used in a software application.

6. Claim 7. [0086-0088] describes the graphical user interface of Adler's invention, mentioning decision options and scenario elements. Our invention does not have a user interface. Our invention provides a method to specify business decisions and a processor to check for consistencies of the specified business

decisions. This is analogous to a specifying a computer programming language and a compiler to process code written in that language.

7. Claim 3. Please see comments in (5) on [0099-0101] and comments in (3) on [0084] above.
8. Claim 4. Please see comments in (5) on [0099-0101] and comments in (3) on [0084] above.
9. Claim 5. Please see comments in (5) on [0099-0101] and comments in (3) on [0084] above.
10. Claim 6. Please see comments in (5) on [0099-0101] and comments in (3) on [0084] above.

In addition, our invention is different from and independent of Adler's invention in the following ways. Adler's invention is about a system and method to help a user make strategic business decisions. Our invention specifies a method to create and process a set of human and machine readable documents which collectively describe a set of related business decisions, such as a set of decisions for a supply chain owned by a business. Our invention and Adler's invention are completely different but are complementary to each other. For example, the underlying logic and rules used in an implementation of a system described by Adler can be specified in BDML which is our invention. Among other uses, this will enable Adler's system to be consistent at the data and logic levels with other information systems owned by the same business.

Further, our invention specifies a method to create and process a set of documents containing the specification of the business objectives, constraints, assumptions, data, and underlying model used in a technical research paper in the area of business decisions (such as those in management science, operations research, operations management) and its findings (claim 4). Adler's invention does not apply in this case.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 and 3 to 7 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local

telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Michael E. Whitham', is written over the typed name.

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